

101206 to 101211—Continued

101208. *LUPINUS MUTABILIS* Sweet. Fabaceae.
South American lupine.

Tallhue or *ullush*. A handsome half-woody shrub about 6 feet high which is usually broad and bushy in habit. Above the attractive foliage rise numerous spikes of varicolored pea-shaped flowers. The predominant colors are blue, lilac, white, and yellow.

For previous introduction see 99821.

101209 to 101211. *OXALIS* spp. Oxalidaceae.

101209. *OXALIS* sp.

A form with yellow flowers, found on well-drained chif sides.

101210. *OXALIS* sp.

A form with white flowers, found in rocky well-drained situations above 13,000 feet altitude.

101211. *OXALIS* sp.

A form with white flowers, found in clay soil near the observatory.

101212 to 101215.

From Cuba. Seeds presented by Robert M. Grey, superintendent, Atkins Institution of the Arnold Arboretum, Soledad, Cienfuegos, through F. G. Walsingham. Received October 17, 1932.

101212. *HETEROSPATHE ELATA* Scheff. Phoenicaceae. Palm.

A tall unarmed palm with a straight slender stem and long pinnate leaves, growing in protected situations and where the rainfall is evenly distributed. It is one of the most attractive and graceful palms and will make a good plant for the conservatory and possibly a good house plant.

For previous introduction see 94191.

101213. *ONCoba ECHINATA* Oliver. Flacourtiaceae.

A smooth shrub with thin leathery oval leaves, small inconspicuous flowers, and round prickly fruits about 1 inch in diameter. It is native to eastern tropical Africa. The seeds contain 46.6 percent of fat, and an analysis of this fat has shown that it contains 87.5 percent of chaulmoogric acid, which is used in the treatment of leprosy.

101214. *PALIURUS RAMOSISSIMUS* (Lour.) Lam. Rhamnaceae.

A shrub, native to China and Japan, resembling the Christ-thorn, *P. spina-christi*, but having both spines straight and larger pubescent leaves.

101215. *TABERNAEMONTANA AMBYOCARPA* Urban. Apocynaceae.

A tropical tree, native to Cuba, with elliptic or oblong leaves up to 5 inches long and small inconspicuous flowers in terminal clusters.

101216 to 101223.

From Costa Rica. Seeds collected by Prof. H. E. Stork, Carleton College, Northfield, Minn. Received October 17, 1932.

101216. *BOMAREA CALDASII* (H.B.K.) Herb. Amaryllidaceae.

No 2873. Collected at 11,000 feet altitude on the Irazu volcano, Costa Rica. A twining ornamental plant, native to the Andes as far south as Peru. The thin spreading leaves are 3 to 6 inches long, and the orange-red to red flowers, about an inch long, are borne in many-flowered pendulous clusters.

101217 to 101221. *RUBUS* spp. Rosaceae.

101217. *RUBUS ALPINUS* Macfad.

Alpine bramble.

No. 3315. Collected July 29, 1932, at 9,000 feet altitude on the Poas volcano. A climbing or trailing shrub with strong green canes. The

101216 to 101223—Continued

trifoliate leaves have elliptical serrate leaflets 2 to 4 inches long, and the purple-tinged white flowers, in narrow pubescent panicles, are followed by small blue-black fruits, reported to be the sweetest flavored of any wild fruit in Costa Rica.

101218. *RUBUS GLAUCUS* Benth. Andes raspberry.

No. 3033. From Cerro de la Muerta, June 27, 1932, at 10,000 feet altitude. A red-fruited raspberry with canes 6 feet high.

101219 and 101220. *RUBUS IRASUENSIS* Liebm.

From Tierra Blanco, July 23, 1932. A tropical American thorny vine with 5-foliate leaves consisting of ovate-acuminate, serrulate, dark-green leaflets, 1 to 2 inches long, and small hairy fruits, not known to be edible.

101219. No. 3257. Plants with pinkish flowers and sour fruits, found at 7,000 feet altitude, growing along fence rows.

101220. No. 3258. Large plants, 10 to 12 feet high with rather sour reddish fruits, found at 6,700 feet altitude.

101221. *RUBUS URTICAEFOLIUS* Poir. (*R. trichomallus* Schlecht.).

No. 2860. From Sanjon, south of Fajar, June 10, 1932, at 4,850 feet altitude. Strong-growing canes, 12 feet high and rather thorny. Flowers and fruits in all stages occur on the same plant. The ripe fruits were slightly acid, but with no characteristic flavor.

101222. *TRIMEZA* sp. Iridaceae.

An ornamental plant collected at 10,000 feet altitude.

101223. *VAGNERA PANICULATA* (Mart. and Gal.) Standl. Convallariaceae.

Collected on the Irazu volcano at 11,000 feet altitude. A perennial herb with ovate-lanceolate, long-acuminate leaves 5 to 6 inches long and panicles of snow-white flowers 2 inches long.

101224. *ALLIUM CEPA* L. Liliaceae. Onion.

From India. Seeds presented by the Punjab Department of Agriculture, Lyallpur, Punjab. Received October 19, 1932.

A mixture of several locally grown varieties.

101225 to 101238. *RHODODENDRON* spp. Ericaceae.

From Jamaica Plain, Mass. Plants presented by William H. Judd, Arnold Arboretum. Received October 24, 1932.

101225. *RHODODENDRON OLDHAMII* Maxim.

A much-branched, partly deciduous red-hairy shrub, 3 to 18 feet high, with thin leathery oblong lanceolate dark-green leaves and red flowers 2 inches wide in terminal umbels. Native to Taiwan.

101226. *RHODODENDRON FULCHRUM CALYCINUM* X *SCABRUM*.

101227. *RHODODENDRON AURICULATUM* Hemsl.

A shrub or small tree up to 20 feet high, native to Hupeh, China. The oblong to oblanceolate auricled leaves, 6 to 12 inches long, are dark green above and clad beneath with flexuous threadlike tomentum. The funnel-shaped flowers, in clusters of 7 to 15, are 2 to 4 inches long and are white or rose pink, splashed with green at the base inside.

101228. *RHODODENDRON FAURIAE* Franch.

A shrub 5 to 10 feet high, native to Japan, the branchlets being clothed with thin loose white floccose tomentum. The oblong elliptic to obovate leaves are 3 to 6 inches long, and the funnel-